

PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. 01107.00004	SERIAL NUMBER
	APPLICANT Nicholas Nicolaides et al.	
	FILING DATE April 24, 2000	GROUP ART UNIT

 jcs71 U.S. PTO
 09/558149


U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

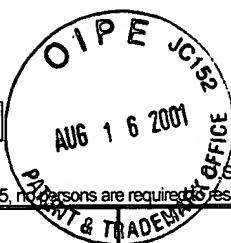
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RES	Glaab WE et al. Carcinogenesis 18:1-8, 1997
RES	Nicolaides et al. Nature 371:75-80, 1994
RES	Nicolaides NC et al. Mol. Cell. Biol. 18:1635-1641, 1998

EXAMINER RES	DATE CONSIDERED 3/20/02
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Application Number 09/558,149
Filing Date April 26, 2000
First Named Inventor NICOLAIDES et al.
Group Art Unit 1632
Examiner Name R. SHUKLA
Attorney Docket Number 01107.00004

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U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
RRS		5,907,079		Mak et al.	05/25/1999	800/2
RBS		6,146,894		Nicolaides et al.	11/14/2000	435/440
RBS		6,191,268	B1	Liskay et al.	02/20/2001	536/23.5

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
RBS		PCT	WO 99/19492		Betzner et al.	04/22/1999		
RBS		PCT	WO 97/08312		Kinzler et al.	03/06/1997		

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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RBS		Allen, D., et al., "MutS mediates heteroduplex loop formation by a translocation mechanism" <i>EMBO J.</i> , 1997, 16(14), 4467-4476.	
		Baker, S.M., et al., "Male mice defective in the DNA mismatch repair gene PMS2 exhibit abnormal chromosome synapsis in meiosis" <i>Cell</i> , 1995, 82, 309-319.	
		Bronner C.E., et al., "Mutation in the DNA mismatch repair gene homologue hMLH1 is associated with hereditary non-polyposis colon cancer" <i>Nature</i> , 1994, 368, 258-261.	
		de Wind, N., et al., "Inactivation of the mouse Msh2 gene results in mismatch repair deficiency, methylation tolerance, hyperrecombination, and predisposition to cancer" <i>Cell</i> , 1995, 82, 321-330.	
		Drummond, J.T., et al., "Isolation of an hMSH2-p160 heterodimer that restores DNA mismatch repair to tumor cells" <i>Science</i> , 1995, 268, 1909-1912.	
		Drummond, J.T., et al., "Cisplatin and adriamycin resistance are associated with mutla and mismatch repair deficiency in an ovarian tumor cell line" <i>J. Biological Chemistry</i> , 1996, 271(33), 19645-19648.	
		Edelmann, W., et al., "Meiotic pachytene arrest in MLH1-deficient mice" <i>Cell</i> , 1996, 85, 1125-1134.	
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RBS		Fishel, R. et al. "The human mutator gene homolog MSH2 and its association with hereditary nonpolyposis colon cancer." <i>Cell</i> 1993, 7:1027-1038.	

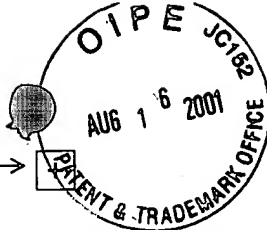
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RRS		Galio, L., et al., "ATP hydrolysis-dependent formation of a dynamic ternary nucleoprotein complex with MutS and MutL" <i>Nucleic Acids Research</i> , 1999 , 27(11), 2325-2331.	
		Hamilton, S.R. et al. "The molecular basis of Turcot's syndrome." <i>N. Eng. J. Med.</i> 1995 , 332:839-847.	
		Harfe, B.D., "DNA mismatch repair and genetic instability" <i>Annu. Rev. Genet.</i> , 2000 , 34, 359-399.	
		Hoang J., et al., "BAT-26, an Indicator of the Replication Error Phenotype in Colorectal Cancers and Cell Lines" <i>Cancer Res.</i> , 1997 , 57, 300-303.	
		Holmes, J., S. Clark, and P. Modrich. "Strand-specific mismatch correction in nuclear extracts of human and <i>Drosophila melanogaster</i> cell lines" <i>Proc. Natl. Acad. Sci. USA</i> 1990 87:5837-5841.	
		Honma, M. et al., "Cytotoxic and Mutagenic Responses to X-rays and Chemical Mutagens in Normal and p53-mutated Human Lymphoblastoid Cells" <i>Mut. Res.</i> , 1997 , 374, 89-98.	
		Jiricny, J., et al., "Mismatch repair defects in cancer" <i>Curr. Opin. Genet. Dev.</i> , 2000 , 10, 157-161.	
		Karran, P., et al., "Genomic instability and tolerance to alkylating agents" <i>Cancer Surveys</i> , 1996 , 28, 69-71.	
		Leach, F.S., et al., "Mutations of a mutS homolog in hereditary nonpolyposis colorectal cancer" <i>Cell</i> , 1993 , 75, 1215-1225.	
		Li, G.-M. and P. Modrich. "Restoration of mismatch repair to nuclear extracts of H6 colorectal tumor cells by a heterodimer of human MutL homologs" <i>Proc. Natl. Acad. Sci. USA</i> 1995 92:1950-1954.	
RRS		Liu, T., et al., "Microsatellite instability as a predictor of a mutation in a DNA mismatch repair gene in familial colorectal cancer" <i>Genes, Chromosomes & Cancer</i> , 2000 , 27, 17-25.	

Examiner Signature	RRS	Date Considered	3/20/02
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First Named Inventor	NICOLAIDES et al.
Group Art Unit	1632
Examiner Name	R. SHUKLA
Attorney Docket Number	01107.00004

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RRS		Liu, T., et al., "Microsatellite instability as a predictor of a mutation in a DNA mismatch repair gene in familial colorectal cancer" <i>Genes, Chromosomes & Cancer</i> , 2000, 27, 17-25.	
		Liu et al., "Analysis of Mismatch Repair Genes in Hereditary Non-polyposis Colorectal Cancer Patients" <i>Nature Medicine</i> , February 1996, 2(2), 169-174.	
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		McCallum, C.M., "Targeted screening for induced mutations" <i>Nature Biotechnology</i> , 2000, 18, 455-457.	
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		Nicolaides, N.C., et al., "Genomic organization of the human PMS2 gene family" <i>Genomics</i> , 1995, 30, 195-206.	
		Nicolaides, N.C. et al. "Molecular cloning of the N- terminus of GTBP." <i>Genomics</i> 1996, 31:395-397.	
		Nicolaides, N.C., et al., "Positive autoregulation of c-myb, expression via Myb binding sites in the 5' flanking region of the human c-myb gene" <i>Molecular and Cellular Biology</i> , 1991, 11(12), 6166-6176.	
RRS		Nicolaides, N.C., et al., "Analysis of the 5' region of PMS2 reveals heterogeneous transcripts and a novel overlapping gene" <i>Genomics</i> , 1995, 29, 329-334.	

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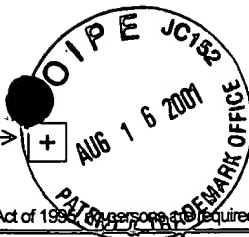
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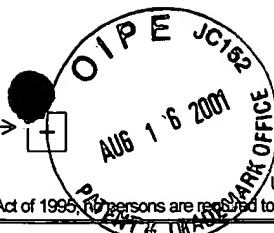
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RRS		Palombo, F., et al., "Mismatch repair and cancer" <i>Nature</i> , 1994, 367, 417.	
		Pang, Q., T.A. Prolla and R.M. Liskay, "Functional domains of the <i>Saccharomyces cerevisiae</i> Mlh1p and Pms1p DNA mismatch repair proteins and their relevance to human hereditary nonpolyposis colorectal cancer-associated mutations" <i>Mol. Cell. Biol.</i> 1997 17(8):4465-4473.	
		Papadopoulos, N., et al., "Mutation of a <i>mutL</i> homolog in hereditary colon cancer" <i>Science</i> , 1994, 263, 1625-1629.	
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		Peinado, M.A., et al., "Isolation and characterization of allelic losses and gains in colorectal tumors by arbitrarily primed polymerase chain reaction" <i>Proc. Natl. Acad. Sci. USA</i> , 1992, 89, 10065-10069.	
		Perucho, M., et al., "Cancer of the microsatellite mutator phenotype" <i>Biol. Chem.</i> , 1996, 377, 675-684.	
		Prolla, T.A., et al., "MLH1, PMS1, and MSH2 interactions during the initiation of DNA mismatch repair in yeast" <i>Science</i> , 1994, 265, 1091-1093.	
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RRS		Spampinato, C., et al., "The MutL ATPase is required for mismatch repair" <i>J. Biological Chemistry</i> , 2000 , 275(13), 9863-9869.	
		Strand, M., et al., "Destabilization of tracts of simple repetitive DNA in yeast by mutations affecting DNA mismatch repair" <i>Nature</i> , 1993 , 365, 274-276.	
		Su, S., et al., "Mispair specificity of methyl-directed DNA mismatch correction <i>in vitro</i> " <i>J. Biological Chemistry</i> , 1988 , 263(14), 6829-6835.	
		Vora, K.A. et al., "Severe Attenuation of the B Cell Immune Response in Msh2-deficient Mice" <i>Journal of Experimental Medicine</i> , February 1999 , 189(3), 471-481.	
		Wheeler, J.M.D., et al., "The role of hypermethylation of the <i>hMLH1</i> promoter region in HNPCC versus MSI+sporadic colorectal cancers" <i>J. Med. Genet.</i> , 2000 , 588-592.	
RRS		Winter, D.B. et al., "Altered spectra of hypermutation in antibodies from mice deficient for the DNA mismatch repair protein PMS2" <i>Proc. Natl. Acad. Sci., USA</i> , June 1998 , 95, 6953-6958.	

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